

# Estimating Methodologies Part 2

## Module 5

ESC Cost Core Training

Developed By

USAF ESC/FMC

Hanscom AFB, MA

Version 2 (Draft)

March 2000 (by ESC/FMC)

Revised

June 1993 (by Tecolote Research, Inc.)

August 1997 (by Tecolote Research, Inc.)

Apr 91

Version 1 (by ESC/FMC)

# Estimating Methodologies

- When to use a specific type of methodology
- Which methodology?
- Criteria to determine the better methodology
- Non-recurring vs. Recurring costs
- Mapping
- Examples & Exercises

# When to Use a Specific Methodology

Estimating methodologies are data-driven

- Are the data inputs required for that particular methodology available?
- Is the data reliable & convincing?
- Is the data credible & timely?

# Which Methodology?

- Any program phase of the life cycle
  - as long as you have the data inputs required by that methodology
- All WBS elements
  - any of the 7 basic methodologies may be appropriate
- Confidence checks
  - at least for the primary estimating methodology
  - and for the cost driving WBS elements

# Criteria to Determine the Better Methodology

- Credibility of data inputs
  - They must be convincing
- Does the methodology substantiate the estimate?
  - The methodology should show that your estimate is solid and reliable
- Confirm the estimate with an alternative methodology
  - Makes a convincing argument

# Non-recurring vs. Recurring Costs

- Non-recurring/one time effort
  - ex: design & development testing in the development phase of the program
  - ex: production start-up costs
- Recurring/repetitive effort
  - ex: fabrication & assembly

# Why Do We Separate Non-recurring from Recurring?

- The efforts involve two different types of activities
- The cost drivers for each vary significantly
- Scaling factors for each must be addressed separately

# How to Segregate Non-recurring from Recurring?

- Go to the contractor's plant and look at the contractor's accounting system
- Quantity information is very important
- \* If using the analogy methodology, collect the non-recurring and recurring costs on the similar program



# What is Mapping?

- Mapping refers to the identification and aggregation of a standard WBS cost item.
- The purpose is to collect all costs that pertain to a particular WBS item so that the data can be analyzed and interpreted correctly.
- The contractor is usually required to map CLINs (not the prices just the items) into the CWBS.

# Mapping Example

Level 1  
AWACS

Level 2  
PMP

Level 3  
Air Vehicle  
Radar-----

Level 4  
Antenna  
Transmitter  
:  
SubSE/PM  
Subsystem Test & Evaluation  
:

Integration & Assembly

SE/PM  
System Test & Evaluation  
Peculiar Support Equipment  
Training  
Data

Boeing Contract

# Westinghouse CWBS CWBS

Radar System

PMP-----

Antenna

Transmitter

Receiver

Integration &  
Assembly

SE/PM-----

System Test &  
Eval.----

Training-----

PSE-----

Data-----

# Boeing

Radar PMP

Radar Subsystem I & A

Radar Subsystem E/PM

Radar Subsystem T & E

Training

PSE

Data